

Fig.1A

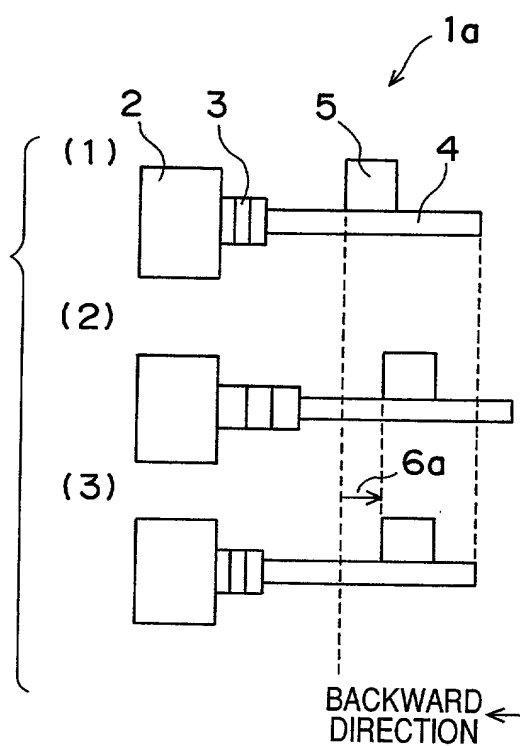


Fig.1B

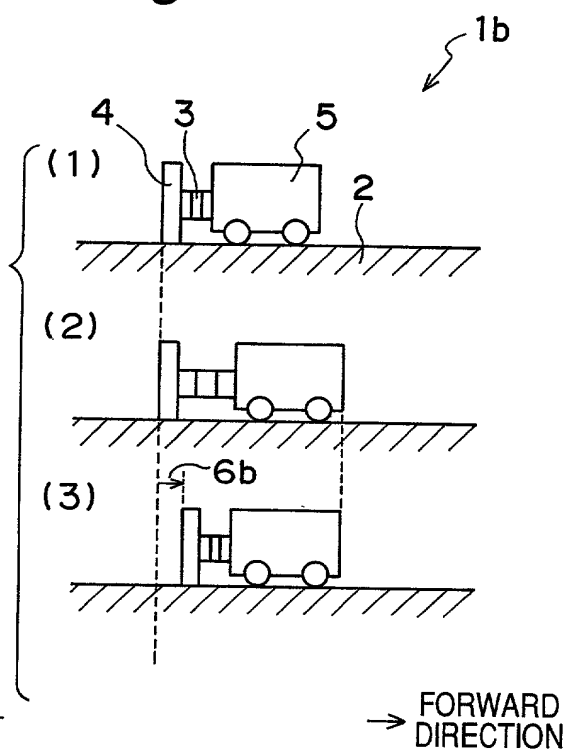


Fig.1C

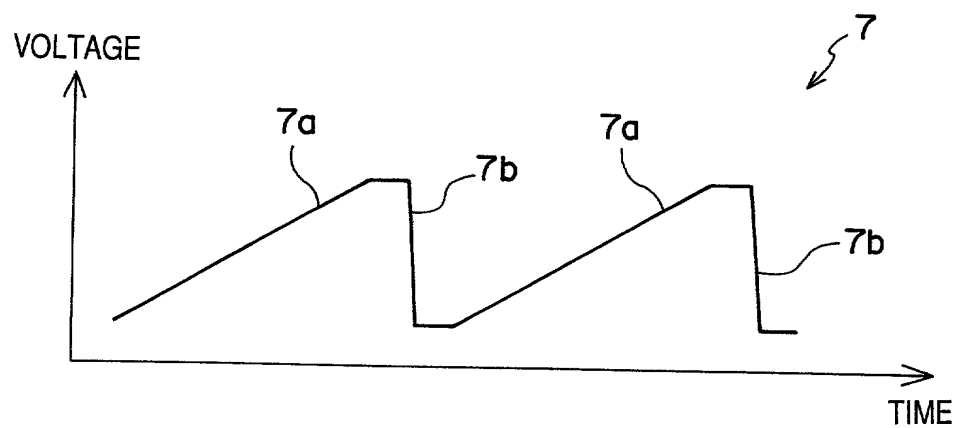


Fig.2A

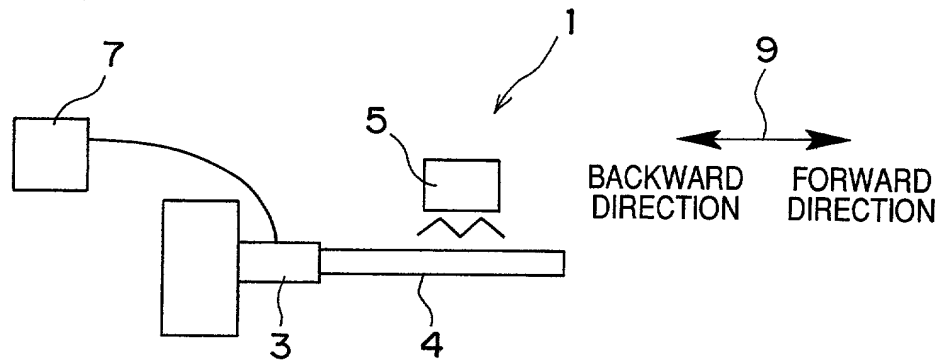


Fig.2B




MOTION OF DRIVE ROD	ADVANTAGEOUS EFFECT
 8a	MOVING BODY MOVES FORWARD
 8b	MOVING BODY MOVES BACKWARD
 8c	FRICTION REDUCES

Fig.3A

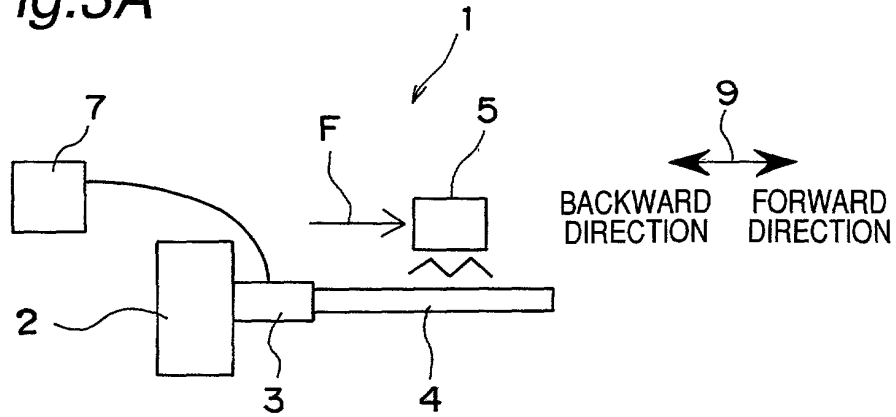


Fig.3B

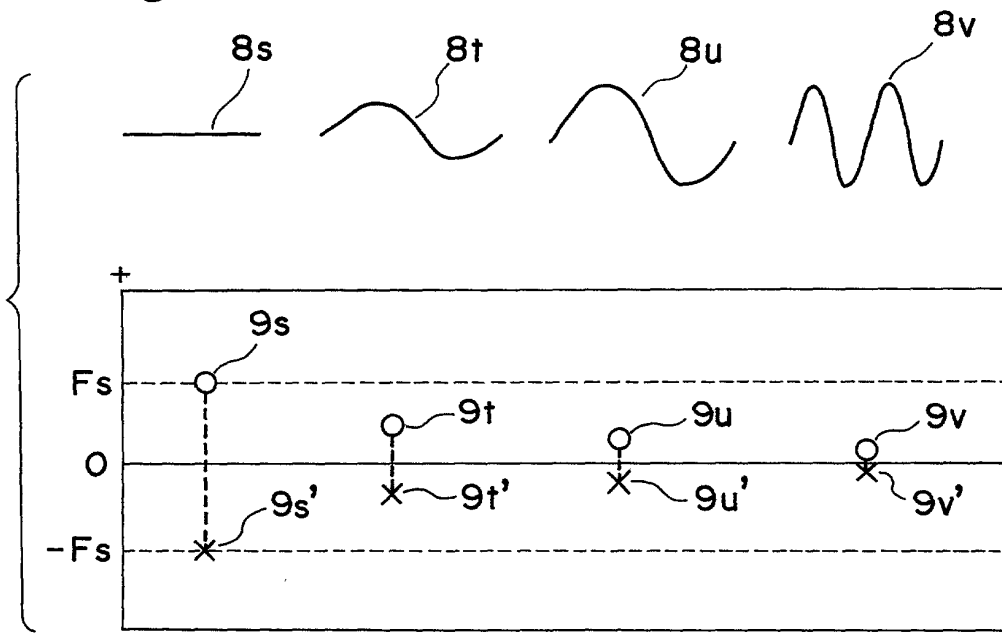


Fig.4A

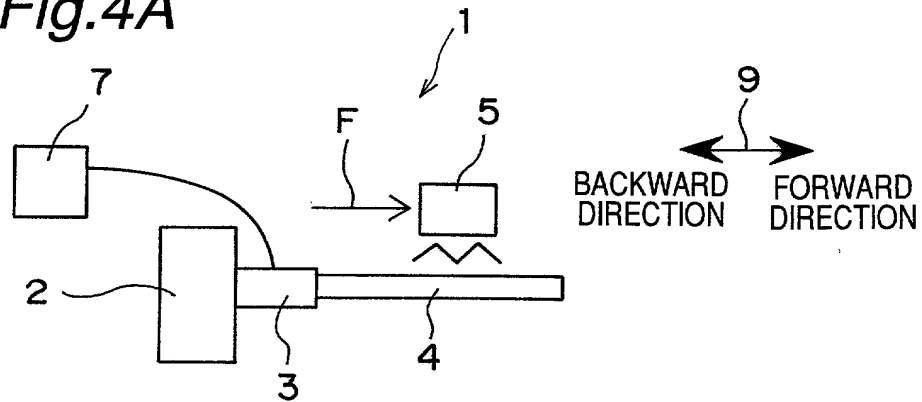


Fig.4B

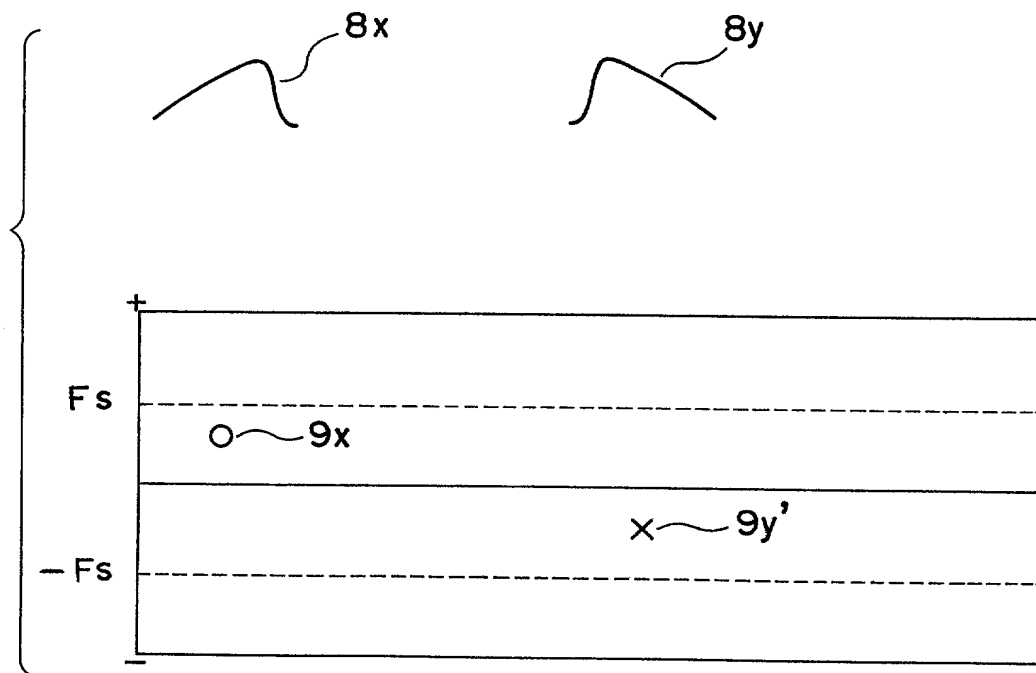
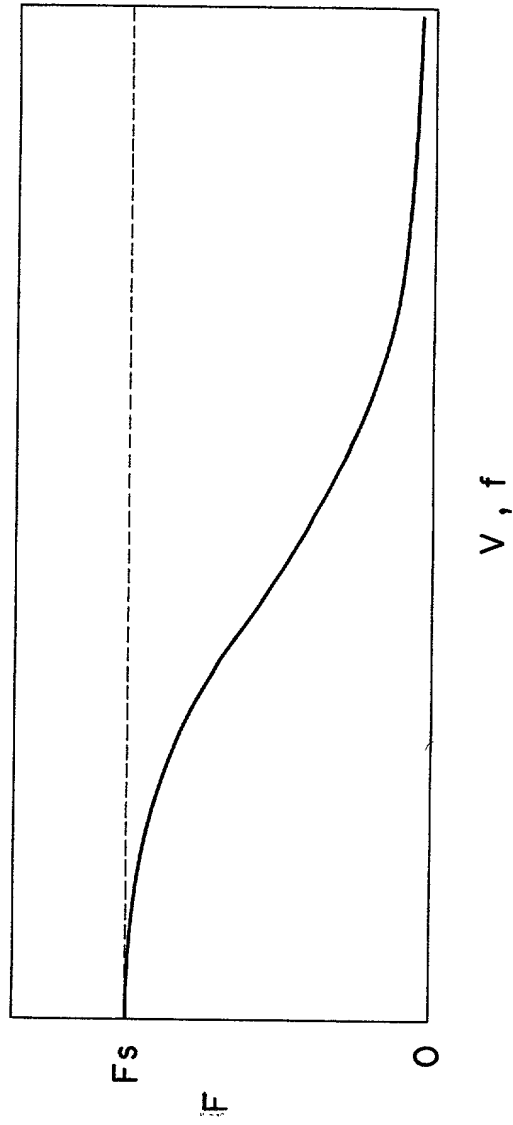


Fig.5



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Fig.6

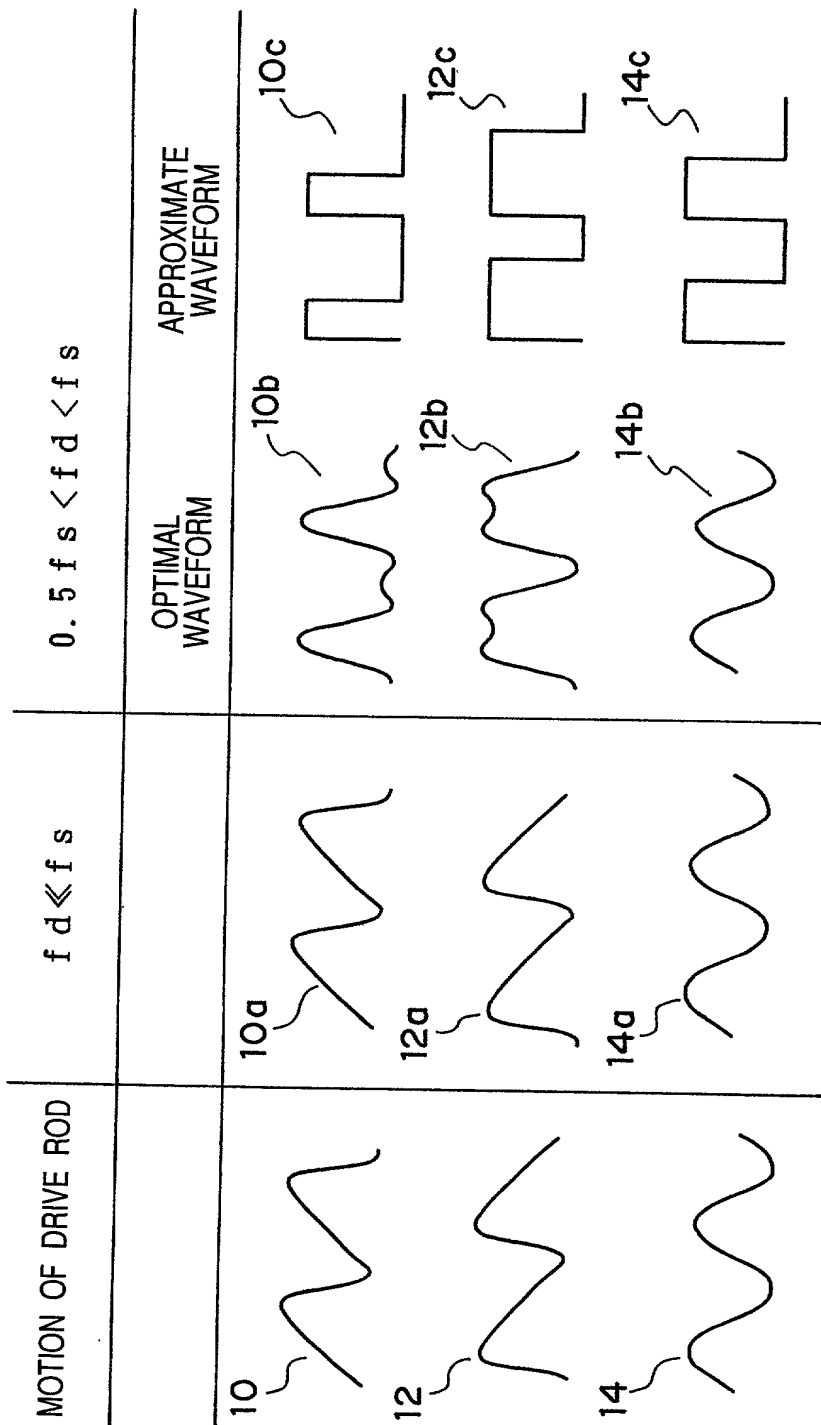


Fig.7A

VELOCITY OF
MOVING BODY

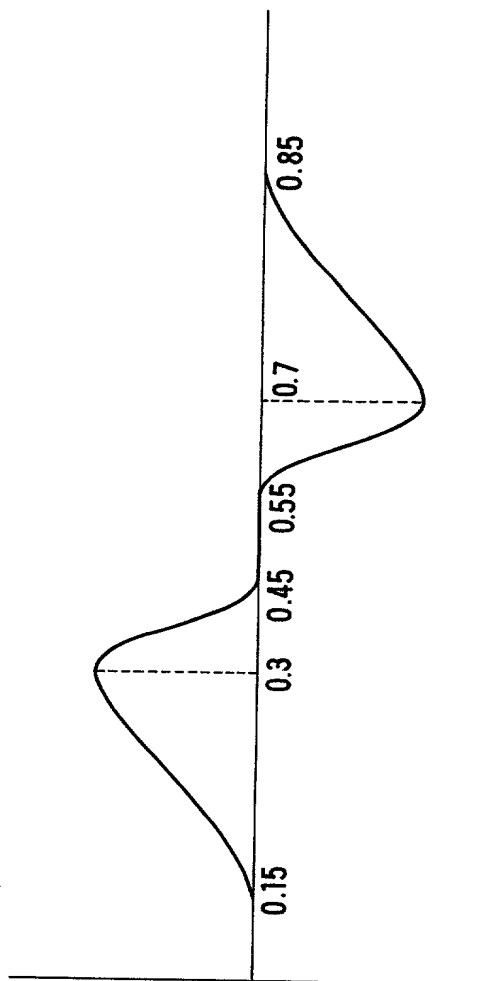


Fig.7B

EFFECT OF REDUCING
FRICTIONAL FORCE

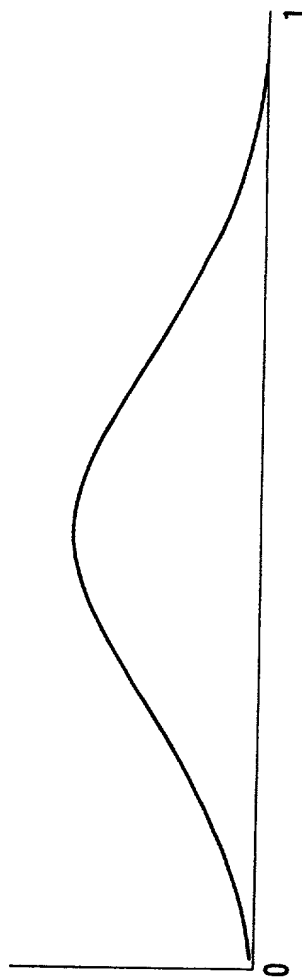


Fig.8A

$d=0$

Fig.8B

$d=0.1$

Fig.8C

$d=0.3$

Fig.8D

$d=0.5$

Fig.8E

$d=0.7$

Fig.8F

$d=0.9$

Fig.8G

$d=1$

FIG. 8A-G

Diagram illustrating a sequence of pulses with varying widths and spacings. The sequence is divided into three groups, each labeled with a value of d :

- Group 1 (Left): Four narrow pulses with $d = 0.1$.
- Group 2 (Middle): Four wider pulses with $d = 0.9$.
- Group 3 (Right): Four very wide pulses with $d = 0.9$.

Diagram illustrating a 1D lattice structure with 12 sites. The lattice is divided into three segments, each with a width $d = 0.3$. The total length of the lattice is $d = 0.7$.

Fig.10A

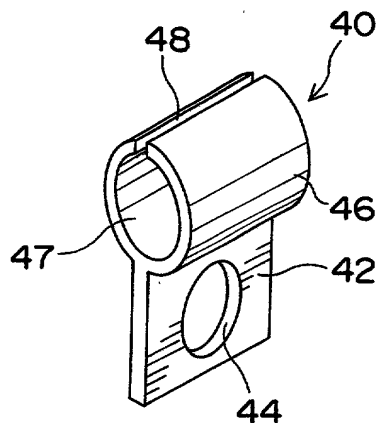


Fig.10B

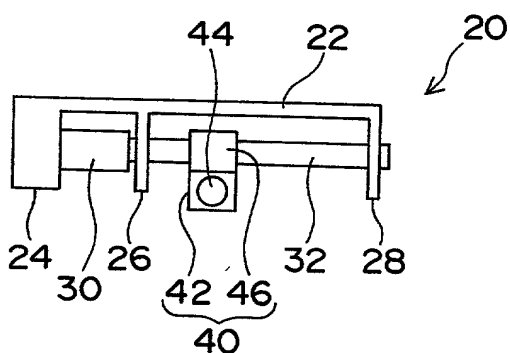


Fig.10C

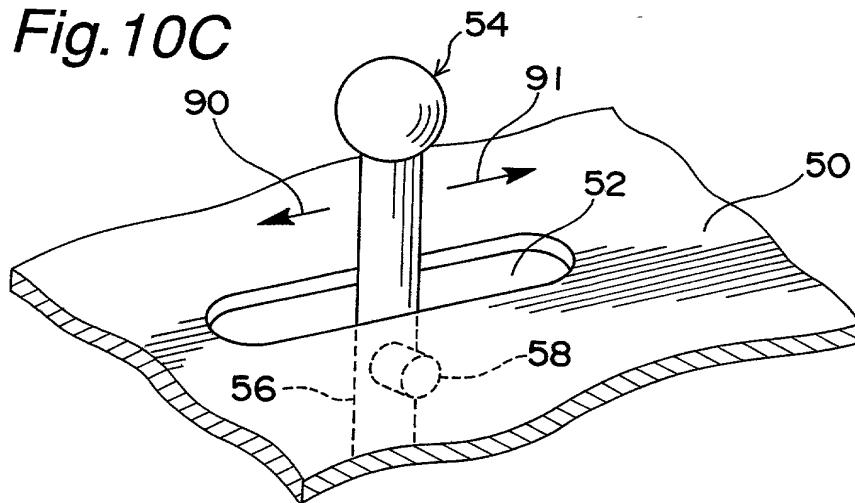
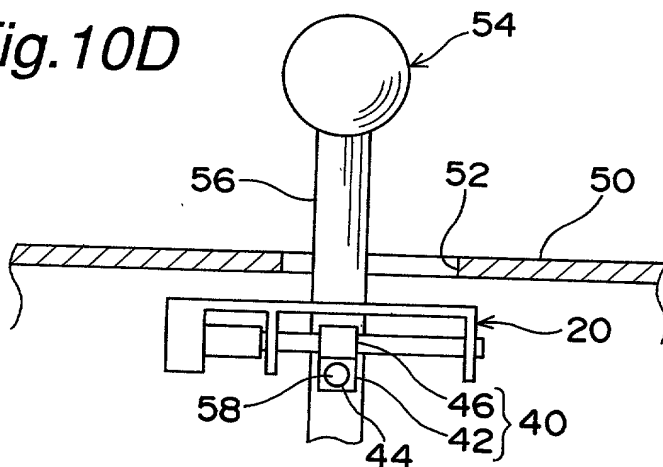


Fig.10D



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Fig.11A

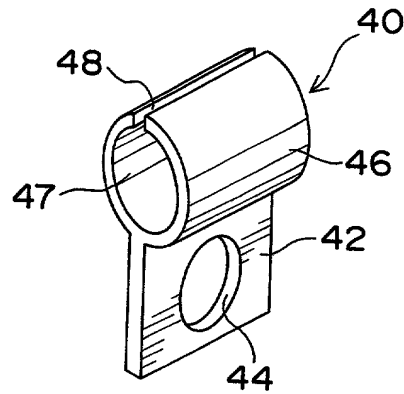


Fig.11B

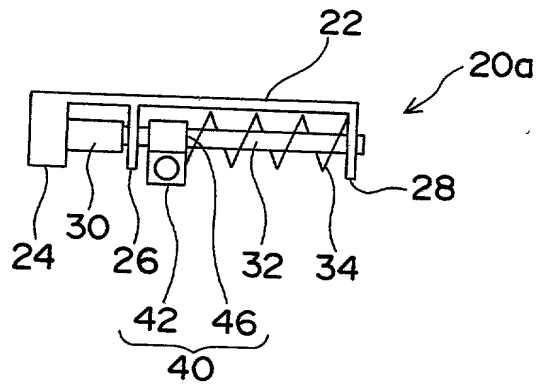


Fig.11C

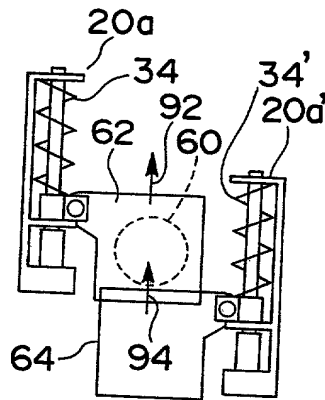


Fig.11D

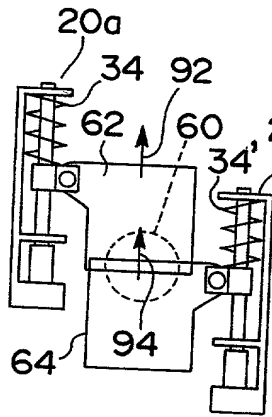


Fig.11E

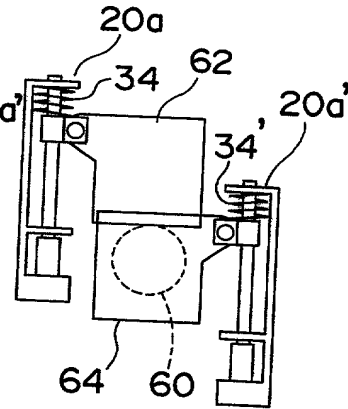


Fig.11F

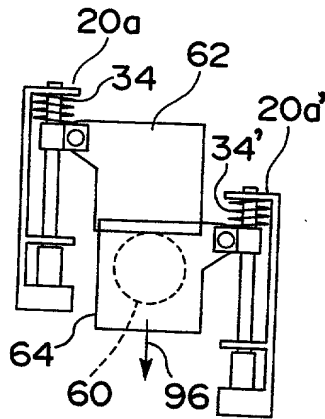


Fig.11G

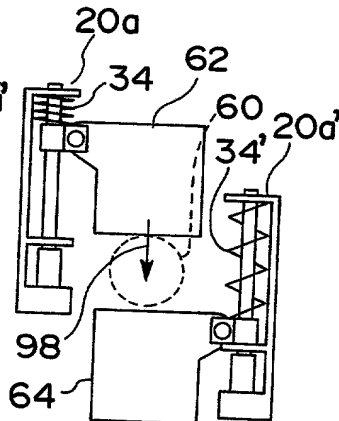


Fig.11H

